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# SCIENCE

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## THE PHYSIOLOGY OF INTERNAL SECRETIONS.\*

WE owe the term 'internal secretions' to Brown-Séquard,† by whom it was first used in published communications dating

\*Paper read at the 4th Triennial Session of the Congress of American Physicians and Surgeons.

† Brown-Séquard and d'Arsonval: *Comptes rendus de la Société de Biologie*, 1891.

from 1891. The essential idea conveyed by the expression, however, is not new, as it has been stated more or less clearly by many previous writers in their speculations upon the probable functions of the so-called ductless or vascular glands. It had long been recognized that these glands possess no excretory ducts, and that, therefore, whatever secretion they may produce probably enters the blood either directly or by way of the lymph. Haller\* is credited with stating this view with regard to the thyroid as early as 1776, and according to Pettitt† a similar view was advanced by Schmidt in 1785 with regard to the suprarenals. Toward the middle of the present century this belief was generally accepted for such glands as the thyroid, suprarenals, thymus, hypophysis cerebri and spleen, but as early as 1869 Brown-Séquard seems to have suggested the view that all glands, whether possessed of excretory ducts or not, give off something to the blood that is of importance in the general nutrition of the organism. From 1889 his ideas took definite shape in numerous publications‡ upon the physiological effects of injections of extracts of the testis. At first he did not use the term internal secre-

\* Jones in Todd's *Cyclopædia of Anatomy and Physiology*: Article on Thyroid Gland.

† Pettitt: *Recherches sur les capsules surrénales*, 1896—Paris. *Thèse de la Faculté des Sciences*.

‡ Brown-Séquard: *Archives de Physiologie normale et pathologique* 1889-92.